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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/945,171	08/30/2001	Howard J. Smith	920476-904953	3257
23644 7590 08/07/2007 BARNES & THORNBURG LLP P.O. BOX 2786 CHICAGO, IL 60690-2786			EXAMINER BOCURE, TESFALDET	
			ART UNIT 2611	PAPER NUMBER
			MAIL DATE 08/07/2007	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

Application No.

09/945,171

Applicant(s)

SMITH ET AL.

Examiner

Tesfaldet Bocure

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 26 April 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-8, 13 and 14 is/are allowed.
- 6) ☒ Claim(s) 11 and 12 is/are rejected.
- 7) ☐ Claim(s) 9 and 10 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- ☐ Notice of Informal Patent Application
- ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Specification***

1. The disclosure is objected to because of the following informalities: The disclosed US patent application number 09/209,386 should be updated by it US patent number and issue date as---now issued as US patent number 6,275,685 issued on August 14, 2001---.

Appropriate correction is required.

### ***Claim Objections***

2. Claims 9-12 are objected to because of the following informalities: The claimed "determined said error values" in claim 9, line 12 should be amended to read as---determine said error value--. See the "error value" determined by the difference means in line 10.

The claimed "determining error values" in claim 9, line 12 should be amended to read as---determining said error value--. See the "error value" determined by the step for determining in line 6.

Claims 10 and 12 is inherently objected as being dependent on the objected base claim.

Appropriate correction is required.

### ***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

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A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 11 and 12 are rejected under 35 U.S.C. 102(e) as being anticipated by Wright, Wright hereinafter (US patent number 6,054,896, newly cited)

5. Wright teaches a transmitter for adjusting the non-linear characteristics of a transmitting amplifier (15 and 16) having a gain (amplitude) and phase error detection circuit (28), where the phase error detection circuit comprising: detecting the phase and amplitude error from input and output of the amplifier (see inputs 13,14 and 137 in fig. 1); determining the difference between the detected value for generating an error value ( $X(t)$  output from the element 28) ; and the compensating means for compensating the non-linear distortion as a function of the input signals  $Ph_a(t)$  and  $Ph_b(t)$  , wherein the output of the amplifier is normalized with respect to the amplifiers input (see col. 15, lines 5-30).

Further to claim 12, Wright also teaches that the phase error and gain error are averaged (see col. 22, lines 58 through col. 23, line 10).

***Allowable Subject Matter***

6. Claims 1-10 and 13-14 are allowed.

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7. The following is a statement of reasons for the indication of allowable subject matter: The claimed subject matter in claims 1-10 and 13-14 is allowable because the arts of record fail to teach or fairly suggest the claimed "comparator for an amplifier (claimed comparator and pre-distortion arrangement in claims 7,9 and 13) comprising: a switch means (see switches 104a-104d and 108a-108d) coupled to the first and second detectors (101 and 112) for selectively coupling the input signal to the amplifier (42) and the output signal from the amplifiers (54) to the detectors (110 and 112); and in combination with the claimed difference means and digital signal processing means" in claims 1,7,9,13 and 14.

### ***Conclusion***

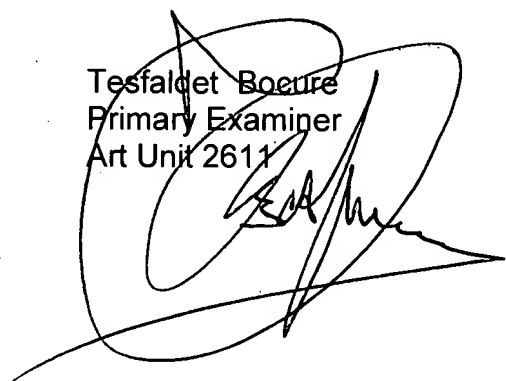
8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tesfaldet Bocure whose telephone number is (571) 272-3015. The examiner can normally be reached on Mon-Thur (7:30a-5:00p) & Mon.-Fri (7:30a-5:00p).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mohammed H. Ghayour can be reached on (571) 272-3021. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Tesfaldet Boeure  
Primary Examiner  
Art Unit 2611



T.Boeure